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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/533,893	05/05/2005	Takeshi Masuda	4034-79	8033

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ARLINGTON, VA 22203

EXAMINER
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DZIERZYNSKI, EVAN P

ART UNIT	PAPER NUMBER
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2875

MAIL DATE	DELIVERY MODE
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11/27/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/533,893

Applicant(s)

MASUDA, TAKESHI

Examiner

Evan Dzierzynski

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 September 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11, 15, 17-32 and 34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3-11, 18-25 and 32 is/are allowed.
- 6) ☒ Claim(s) 1, 17, 29-31 and 34 is/are rejected.
- 7) ☒ Claim(s) 2 and 15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 May 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Objections*

Claim 15 is objected to because of the following informalities: it is dependent on claim 14, which was cancelled. Claim 15 has been examined as being dependent on claim 4. Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 17, 26-28, 31, and 34 are rejected under 35 U.S.C. 102(b) as being anticipated by US PAT 6335999.

As for claims 1 and 31, Winston et al. discloses a light source 406 and a light guide element including an incidence surface (where 402 enters the plate, Fig 43) for receiving light emitted from the light source and an outgoing surface (where 468 exits) from which the light incident from the incidence surface goes out; wherein the light guide element includes a polarization selection layer 400 for causing light of a specific polarization direction (Fig 43), among the incident light, to selectively go out from the outgoing surface, and a polarization conversion layer (400, col 48, ln 27+) for converting light of a polarization direction, different from the specific polarization direction, into the light of the specific polarization direction (Fig 44, col, 48, ln 27+) the polarization selection layer reflects the light of the specific polarization direction substantially only

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toward the outgoing surface, and wherein at least part of the polarization conversion layer 422 is substantially parallel to the polarization selection layer (shown in another embodiment, line 432 is parallel with the top of 422, Fig 43). Wherein the polarization conversion layer is a phase plate that has birefringence (col 48, ln 27+) and that the plate is transparent (col 7, ln 60+).

As for claims 17 and 34, Winston et al. discloses a light source 406 and a light guide element including an incidence surface (where 402 enters the plate, Fig 43) for receiving light emitted from the light source and an outgoing surface (where 468 exits) from which the light incident from the incidence surface goes out; wherein the light guide element includes a polarization selection layer 400 for causing light of a specific polarization direction (Fig 43), among the incident light, to selectively go out from the outgoing surface, and a polarization conversion layer (400, col 48, ln 27+) for converting light of a polarization direction, different from the specific polarization direction, into the light of the specific polarization direction (Fig 44, col, 48, ln 27+). Winston also discloses that the polarization conversion layer is a phase plate and that at least part of the polarization conversion layer is substantially parallel to the polarization selection layer (shown in another embodiment, line 432 is parallel with the top of 422, Fig 43) and that the directions of a slow axis and a fast axis of the phase plate are in a plane parallel to the outgoing surface and do not match the specific polarization direction (400, Fig 43).

As for claim 26, Winston discloses the device as discussed above, and in another embodiment teaches a polarization conversion layer 422 that is located

oppositely to the outgoing surface with the polarization selection layer 400 interposed therebetween (Fig 39).

As for claim 27, Winston discloses that the polarization conversion layer 422 is located closer to the outgoing surface than the polarization selection layer (400, Fig 43)

As for claim 28, Winston further discloses a display panel 107 provided on the outgoing surface side of the lightguide element of the illumination device and including at least one polarizer (col 48, ln 27+).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 29 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Winston et al. US PAT 6335999 in view of Epstein et al. US 2002/0149925.

As for claim 29, Winston discloses the device as discussed above but fails to teach or disclose it with a transparent input device. Kawashima et al. teaches a transparent input device for use with a lightguide device (paragraph 0005). It would have been obvious for one of ordinary skill in the art to combine the transparent input device of Epstein et al. with the device of Winston to provide the device with a touch panel to control the device. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the conventional touch panel of Epstein and place it on the counter surface of the light guide of Winston, since it has been held

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that rearranging parts of a prior art structure involves only routing skill in the art. *In re Japikse*, 181 F.2d 1019, 86 USPQ 70 (CCPA 1950).

As for claim 30, Winston further discloses that the display panel includes a substrate 432, and the lightguide element included in the illumination device acts as the substrate (Figs 43, 44).

### ***Response to Arguments***

Upon further consideration, the applicant's arguments with respect to Mamiya et al. are convincing. The previous rejections have been withdrawn. Independent claims 1, 17, 31, and 34 have been rejected by Winston et al. US PAT 6335999.

### ***Allowable Subject Matter***

Claims 3-11, 18-25, and 32 are allowed.

The following is an examiner's statement of reasons for allowance:

As for claim 3 and 32, the prior art fails to teach or disclose a light guide with a polarization selection layer for causing light of a specific polarization direction to selectively go out from the outgoing surface and a polarization conversion layer for converting light of a different polarization direction, wherein

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Claim 2 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

As for claim 2, the prior art fails to teach or disclose a polarization selection layer including a plurality of inclining dielectric films inclining with respect to the outgoing surface, the films arranged increasingly densely becoming farther from the incidence surface, and wherein at least part of the polarization conversion layer is a phase plate and is formed of a material having birefringence.

#### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Evan Dzierzynski whose telephone number is (571)-272-2336. The examiner can normally be reached on Monday through Friday 7:00 am - 3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandy O'shea can be reached on M-F (571)-272-2378. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

EPD

/Ali Alavi/

11/14/2007

Primary Examiner